

## Media Watch on Climate Change

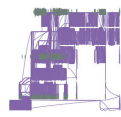
Geospatial Web Technology for Accessing  
Environmental Online Resources

<http://www.ecoresearch.net/climate>

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MODUL University Vienna

Department of New Media Technology



## Overview

- **US Election 2004 Web Monitor**

<http://www.ecoresearch.net/election2004/>

- **IDIOM**

Information Diffusion across Interactive Online Media

<http://www.idiom.at/>

- **Service-Oriented Architecture**

- Content and Annotation Services
    - Interface Services (Semantic, Geographic)
    - Analytical Services (Visual, Statistical)

- **Use Cases**

- CCC: Climate Change Collaboratory
    - CATER: Contextualized Access of Tourism-Related Electronic Resources

## Research Questions

- How widespread is **content redundancy**, and what influences content replication within and across social networks?
- Does **media interactivity** influence information diffusion? Can existing models such as hub-and-spoke, syndication and peer-to-peer explain this influence?
- Which **content placement strategies** increase the impact on the target audience and support self-reinforcing content propagation in virtual communities (viral marketing)?
- Impact of macroscopic information flows on **environmental awareness** and **public opinion**? What are appropriate methods to measure and model the extent, dynamics and latency of this process?

## US Election 2004 Web Monitor

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
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  - Edwards, John
  - Kerry, John
  - Nader, Ralph

**special reports**


- Introduction
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- Media Map

### US Election 2004


Weekly Snapshots of International Web Coverage




**Post-Election Update** (Jan 5, 2005). Each week, the US Election 2004 Web Monitor compares attention and attitude towards the presidential candidates among online media, the Web sites of environmental organizations, and Fortune 1000 companies. Keywords grouped by political party and geographic region summarize the key issues associated with each candidate.  
link :: [Chart](#) | [News Media](#) | [Environmental Sector](#) | [Fortune 1000](#)




**Global Warming** (Oct 12, 2004). A devastating hurricane season and the Russian government's recent decision to ratify the Kyoto Protocol have put climate change back in the limelight. But how important is the issue of global warming in the run for US presidency?  
link :: [Global Warming](#) | [Greenhouse Gas](#) | [Climate Change](#)



**First TV Debate** (Oct 2, 2004). An analysis of more than one million Web pages complements opinion polls and highlights the impact of the first TV debate between George W. Bush and John Kerry, with both parties profiting. John Kerry's performance accelerated the Democrats' prior gains in media attitude.  
link :: [Chart](#)



**Energy Policy** (Sep 28, 2004). What strategies have presidential candidates suggested to cope with record-level energy prices and increasing domestic demand? Public glossaries of the Energy Information Association, the US Department of Energy, and the California Energy Commission helped compile the lists of terms represented in this analysis.  
link :: [Renewable Energy](#) | [Fossil Fuels](#) | [Nuclear Energy](#)



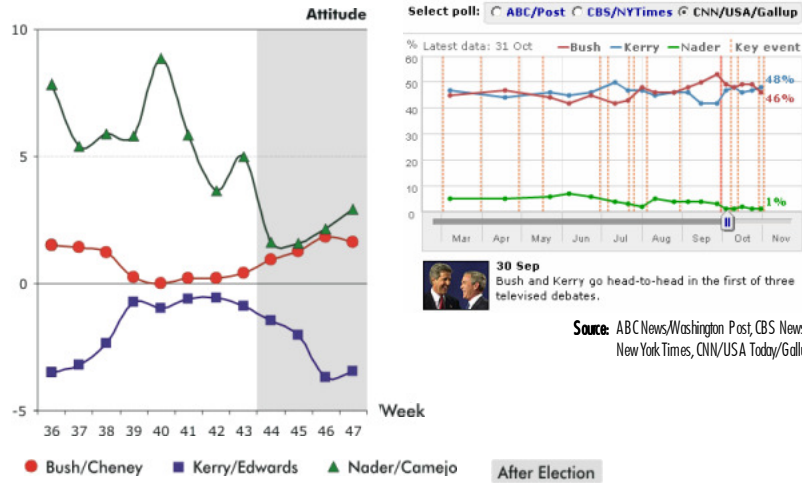
**summary**

This project of the [ECORESEARCH NETWORK](#) automatically provides a weekly snapshot of international Web coverage. The results reflect online attention and attitude towards the US presidential candidates. Keywords grouped by political party and geographic region summarize the key issues associated with each candidate.  
[\[more\]](#)

www.idiom.at • www.modul.ac.at/nmt

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## US Election 2004 Web Monitor



## US Election 2004 Web Monitor

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**Special Reports**

Renewable Energy (Pos) (Neg) (Random) (?) Week 50 [Dec 15]

- a bill by the way that calls for a mere 15 percent increase in funding for research into **alternative energy** -- as opposed to **john kerry's** plan to double spending on **alternative energy** research ([League of Conservation Voters](#)). ☺
- the bill, which **president bush** signed into law on october 22, 2004, includes only a one-year ptc extension and expands the eligible electricity resources to include **geothermal** energy, solar energy, open-loop biomass, small irrigation power, as well as municipal solid waste ([Union of Concerned Scientists](#)). ☺
- an ideological chasm separates the environmental policies of the two candidates, with president **george w. bush** favoring more use of domestic **coal** and oil to cut dependence on middle east oil, while kerry seeks a shift to **clean** energy like solar or **wind power** by 2020 ([Environmental News Network](#)). ☺
- they both talk about **hydrogen** as a fuel source and fuel cells, a technology for moving our cars and buses that **president bush** has talked about and that **john kerry** has made part of his campaign as well ([Public Broadcasting Service](#)). ☺
- 'this is the first significant funding at the national level since **president bush's** stated goal of **supporting** establishment of a **hydrogen** economy ([ConocoPhillips](#)).
- the texas rps, passed in 1999 under governor **george w. bush**, has been so successful that utility companies have surpassed the percentages of **renewable energy** required by them ([Friends of The Earth](#)). ☺

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### Contextualized Information Space

Collaboration platform and knowledge repository annotated along multiple dimensions

- Urgency and scope of environmental problems call for both immediate action and sustainable long-term strategies (Time)
- ICT transform the way we handle the explosive growth and reduced lifespan of environmental knowledge (Semantics)
- Interdependency of micro- and macro-level indicators and strategies > e.g. “Think globally, act locally!” (Location)

- Public Web Portal  
<http://www.ecoresearch.net/climate/>
- Extraction of Environmental Knowledge
  - 150 Anglo-American News Media Sites
  - 200,000 Documents (Mirrored in Weekly Intervals)
  - 10,000 Environmental Articles
- Contextualized Information Space
  - Spatial** Annotate Source and Target Geography  
BBC: „Vienna Marking Mozart Milestone“  
Source: Europe | United Kingdom | London  
Target: Europe | Austria | Vienna
  - Semantic** Classify Documents, Assign Ontology Concepts
  - Temporal** Add Timestamps to Publications, Events, etc.

## Media Watch on Climate Change

Active Document Home About Help

**How to 'go green' on a budget - MSN Money**  
[articles.moneycentral.msn.com/Investing/Extra/HowToGoGreenOnABudget.aspx](http://articles.moneycentral.msn.com/Investing/Extra/HowToGoGreenOnABudget.aspx)  
 Published in: US • Text refers to: Portland • Mirror Date: 2007-07-04

Green logo green, logo more green content expand. Live Earth logo. Spinal Tap. Turn it up to 11. Spinal Tap is reuniting for Live Earth to prevent the earth from spontaneously combusting. • Live Earth concert information. • Are democrats greener. • The green redneck. • global warming survival handbook. • How to green your pet. Shopping for deals Corbis. Extra. How to 'go green' on a budget. Yes, organic food and products often cost more. Here are some ways to rethink your objectives and stretch your dollar. By Abby Schultz. The consumer who grabs the half-gallon of organic milk instead of regular milk knows something about the cost of 'going green.' It's high. A recent study by the U.S. Department of Agriculture spells it out. Nationally, organic milk cost 98% more than regular milk in 2004: \$4.01 for organic, \$2.02 for regular, a price difference of \$1.99. That's almost enough to buy another half-gallon of regular milk. Prices of organic produce, poultry and eggs are also higher, far more than 200% higher in the case of poultry, according to the USDA. But green-minded consumers -- who care about their health, as well as 'green'

Quotes max min close

The 15-minute Test: Time For a hybrid car - Ford Family Says Not Discuss  
 ota Prius. head help choosing a hybrid car - See what other car shoppers an  
 nanotechnology Teamed to Boost hybrid car Efficiency: A day after Preside  
 here are now three gas-electric hybrid car models on the market: the Toyota  
 I warning may consider buying a hybrid car - which can get 50 miles to the

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 rise due to climate change, which makes a  
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**AmeriScan: April 28, 2006**  
 and Natural Resources Division, "The  
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hybrid car

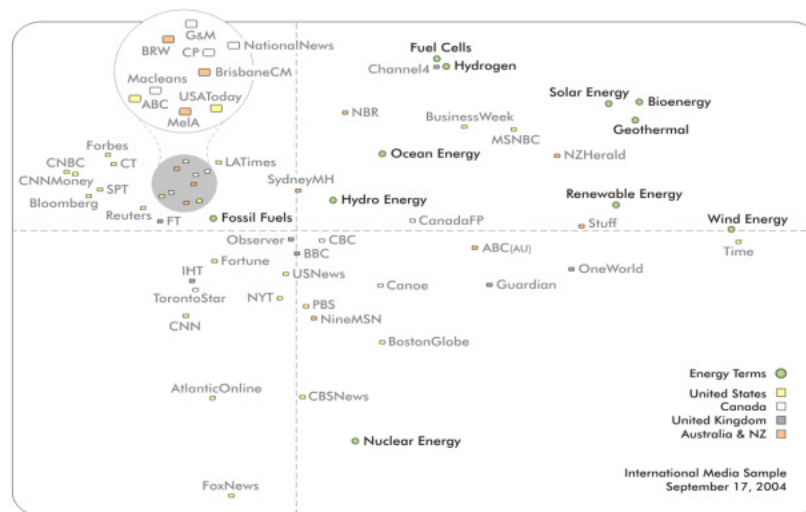
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**idiom**  
CLIMATE CHANGE

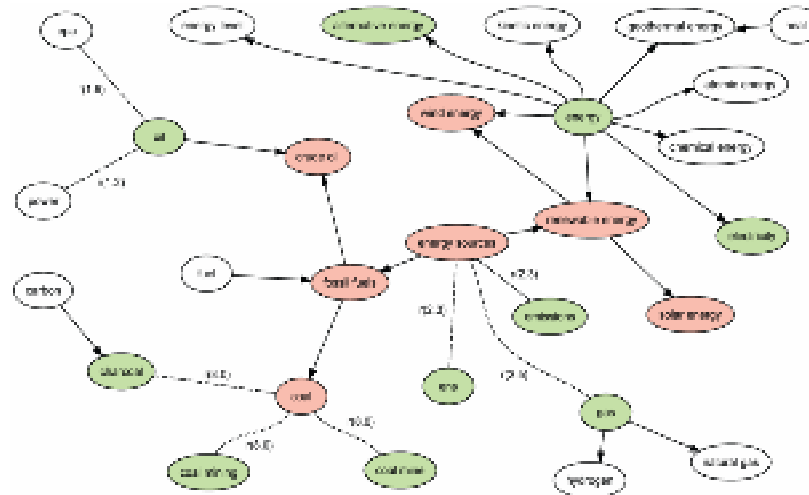
Semantic Map | Ontology max min 3D

Geographic Map max min 3D

## Perceptual Map



## Ontology Services

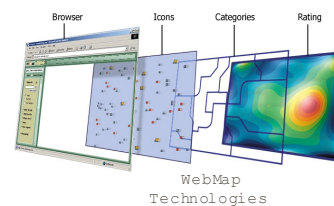


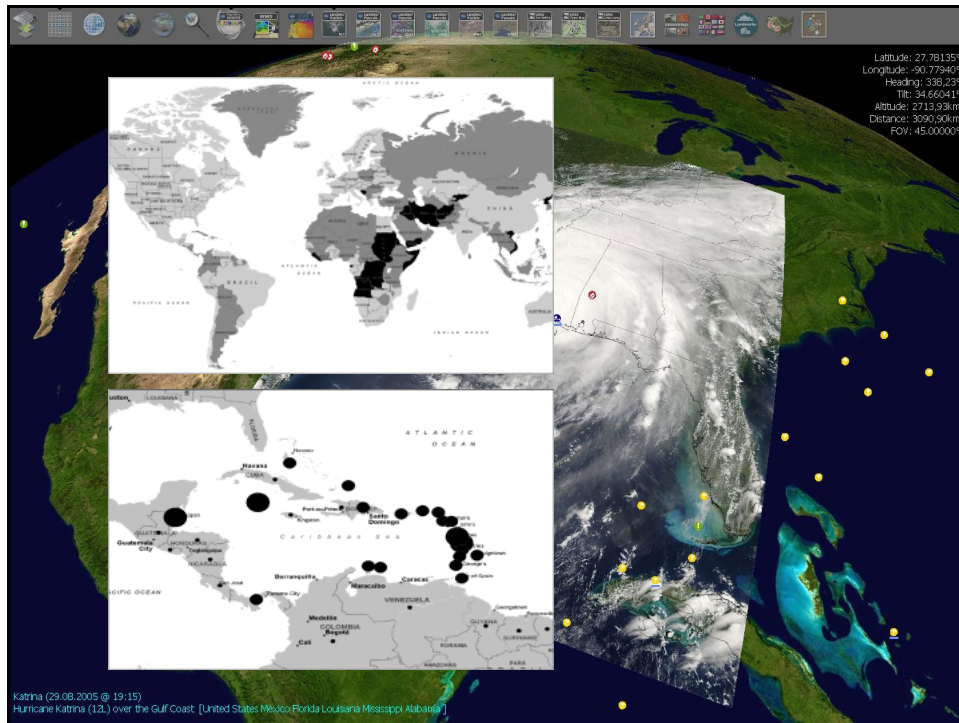
## Interface Services

- **Semantic Interfaces**
  - Perceptual Maps (US Election Monitor 2004)
  - Information Landscapes (Aureka, VisIslands)
  - Ontology-based Visualizations
- **Geospatial Interfaces**

The Geospatial Web “may ultimately be the big disruptive innovation of the coming decade” (Erle et al. 2005, xxv).

  - 2D Platforms
    - MapQuest
    - Google Maps
    - Yahoo! Maps
  - 3D Platforms
    - NASA World Wind
    - Google Earth
    - MS Virtual Earth





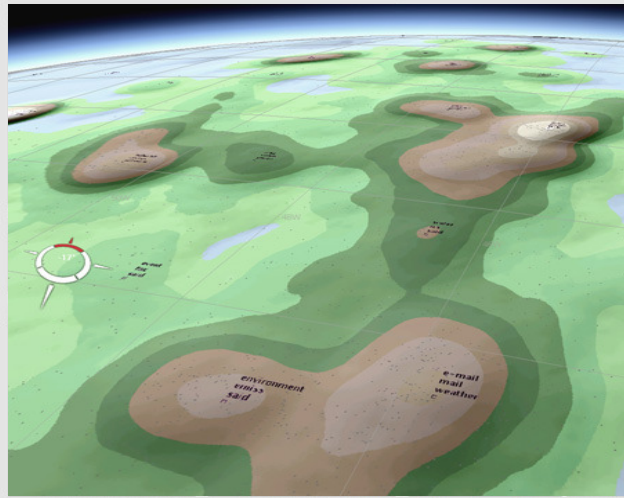
## The Geospatial Web

- Integrates
  - Cartographic Data
  - Environmental Indicators
  - Geotagged Hypermedia
- Knowledge Planets
  - Topology of Information Landscape
    - Peak = Cluster of Documents on a Specific Topic
    - Valley = Sparsely Populated Part of the Information Space
  - Projecting Information Landscapes onto Virtual Globes
    - Initial Arrangement and Stability of Topics
    - Navigation Across Layers and the 0° Meridian Line
  - Download | [www.geospatialweb.com/chapter-1](http://www.geospatialweb.com/chapter-1)

Scharl, A. (2007). "Media Platforms for Managing Geotagged Knowledge Repositories", The Geospatial Web – How Geobrowsers, Social Software and the Web 2.0 are Shaping the Network Society. Eds. A. Scharl and K. Tochtermann. London: Springer. 3-14.



## Climate Change Media Watch



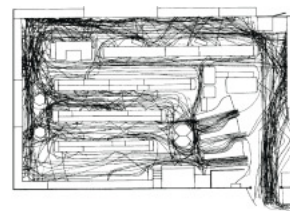
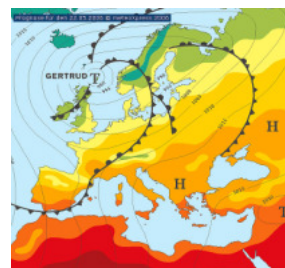
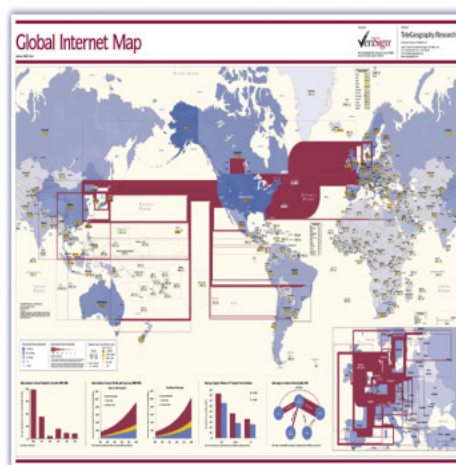
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## Analytical Services

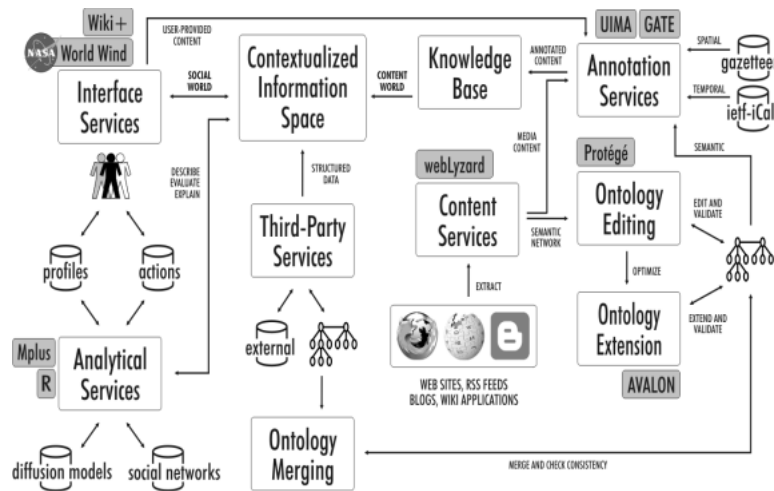


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## IDIOM System Architecture



## New Media Trends

- **Social Computing and the Web 2.0**
  - Governed by strong **network effects** and harnessing **collective intelligence** through customer-self service and algorithmic data management (O'Reilly 2005)
  - Blur the distinction between content production and content consumption
- **Hybrid Models of Content Production**
  - Individual (Monographs, Blogs)
  - Cooperative
    - Hierarchical (Newspaper Articles, Edited Books, Traditional Encyclopedias)
    - Evolutionary (Groupware, CMS, Wiki)
  - Automated (News Aggregators)